Clinical trial [# ref]	Treatment Window	Number of Patients	Imaging Inclusion criteria	Imaging Exclusion criteria
EXTEND [10]	4.5-9hrs	225	A "hypo-perfusion to core" volume ratio >1.2 and an absolute difference greater than 10mL between perfusion lesion and MR-DWI or CT-CBF core lesion. Ischaemic core ≤70 ml using MR-DWI or CT-CBF.	Ischemic core >1/3 MCA territory qualitatively ICH
WAKE UP [12]	>4.5hours	503	MRI with DWI and FLAIR MRI with DWI-FLAIR mismatch.	Poor quality MRI ICH FLAIR parenchymal hyperintensity in region of AIS on DWI Large DWI lesion volume > 1/3 of the MCA or > 50% of the anterior cerebral artery (ACA) or posterior cerebral artery (PCA) territory (visual inspection) or > 100 ml Any MRI findings indicative of a high risk of symptomatic ICH
MR. WITNESS [11]	≤4.5 hrs	80	Brain MRI findings consistent with early stroke onset MRI diagnostic of acute ischemic stroke and consistent with clinical syndrome.	Uninterpretable images Lack of DWI lesion Evidence of prior macroscopic ICH Microbleeds (≥ 10) in a pattern suggestive of amyloid angiopathy
ECASS-III [8]	3-4.5 hrs	821	Acute ischemic stroke on CT/MRI	ICH or major ischemic infarction
NINDS-II [7]	<3 hrs	333	No ICH on baseline CT	NA

Supplementary Table-1: Imaging based inclusion and exclusion criteria for select trials based on IV thrombolysis. CBF: cerebral blood flow; ICH: intracranial haemorrhage.

Clinical trial	Treatment Window	Number of Patients	Imaging Inclusion criteria	Imaging Exclusion criteria
DEFUSE-3 [24]	6-16 hrs	182	ICA or MCA-M1 occlusion Target Mismatch Profile on perfusion imaging (Core infarct < 70 ml, mismatch ratio > 1.8 and mismatch volume > 15 ml)	ASPECTS score <6 on non-contrast CT Evidence of intracranial tumor (except small meningioma) acute ICH, neoplasm, or AVM. Significant mass effect with midline shift Evidence of ICA flow limiting dissection or aortic dissection Intracranial stent in the same vascular territory that would preclude the safe deployment/removal of the neuro-thrombectomy device Occlusions in multiple vascular territories.
DAWN [25]	6-24 hrs	206	AIS with< 1/3 MCA territory involved, as evidenced by CT or MRI Occlusion of the intracranial ICA and/or MCA-M1 Clinical Imaging Mismatch (CIM) defined as one of the following on RAPID MR-DWI or CTP maps: a. 0-20 cc core infarct and NIHSS ≥ 10 (and age ≥ 80 years old) b. 0-30 cc core infarct and NIHSS ≥ 10 (and age < 80 years old) c. 31 cc to < 50 cc core infarct and NIHSS ≥ 20 (and age < 80 years old)	ICH Evidence of ICA flow limiting dissection Severe proximal extra-cranial carotid artery stenosis, or occlusion where concurrent vessel angioplasty or stenting is expected to be necessary, and the procedure cannot be delayed until after the 24 (-6/+24) hour assessments have been completed Excessive tortuosity of cervical vessels that would likely preclude device delivery/deployment Suspected cerebral vasculitis Suspected aortic dissection. Intracranial stent in the same vascular territory that would preclude the safe deployment/removal of the Trevo device Occlusions in multiple vascular territories.
REVASCAT [20]	<8 hrs	206	Occlusion (TICI 0-1) of the intracranial ICA, MCA-M1 segment.	ASPECTS <7 on non-contrast CT, or <6 on DWI MRI. Patients 81 to 85 years: ASPECTS <9 must be excluded. ICH (the presence of microbleeds is allowed). Significant mass effect with midline shift. Evidence of ipsilateral carotid occlusion, high grade

				stenosis or arterial ICA dissection that cannot be treated or will prevent access to the intracranial clot. Excessive tortuosity of cervical vessels precluding device delivery/deployment Subjects with occlusions in multiple vascular territories Evidence of intracranial tumor (except small meningioma)
SWIFT PRIME [21]	<6 hrs	196	Occlusion (TICI 0-1) of the intracranial ICA, MCA-M1 segment. Core infarct > 70 ml; Tmax (≥10 sec)≥ 100 ml or penumbral to infarct core volume ≤ 1.8 and penumbral volume < 15 mL	ICH Evidence of mass effect or intra-cranial tumour (except small meningioma). Cerebral vasculitis. CT showing hypodensity or MRI showing hyperintensity involving greater than 1/3 of the middle cerebral artery (MCA) territory (or in other territories, >100 cc of tissue) on presentation. ASPECTS < 6. CT or MRI evidence of a basilar artery (BA) occlusion or posterior cerebral artery (PCA) occlusion. Carotid dissection or complete cervical carotid occlusion requiring stenting at the time of the index procedure (i.e., mechanical thrombectomy). 8. Imaging evidence that suggests, in the opinion of the investigator, the subject is not appropriate for mechanical thrombectomy intervention (e.g., inability to navigate to target lesion, moderate/large infarct with poor collateral circulation, etc.)
ESCAPE [17]	<12hrs	316	Confirmed symptomatic intracranial occlusion of intracranial ICA, M1 MCA, or M1-MCA equivalent (2 or more M2-MCAs)	ASPECTS 0-5 CTA: no or minimal collaterals in a region greater than 50% of the MCA territory when compared to pial filling on the contralateral side. CTP (>8 cm coverage): a low CBV and very low CBF ASPECTS <6 in the symptomatic MCA territory CTP (<8 cm coverage): a region of low CBV and very low CBF >1/3 of the CTP imaged symptomatic MCA territory.

				Suspected intracranial dissection as a cause of stroke. Chronic vessel occlusion.
EXTEND-IA [19]	<6 hrs	70	Occlusion: ICA, M1 or M2 MCA Mismatch ratio>1.2, and absolute mismatch volume> 10 ml, and core infarct < 70mL	ICH Inability to access cerebral vasculature. Contra indication to imaging with MR with contrast agent.
THRACE [18]	<5 Hrs	414	Occlusion: ICA, M1MCA or upper 1/3 of BA	Contraindications for intravenous thrombolysis Occlusion or stenosis of the pre-occlusive cervical internal carotid artery ipsilateral to the lesion
MR CLEAN [16]	<6 hrs	500	No ICH Occlusion: Intracranial ICA, M1/M2 MCA or A1/A2-ACA.	Infarct in occluded vessel territory in preceding 6 weeks History of ICH.
BAOCHE [45]	6-24 hrs	217	TIMI 0-1: BA or V4 segments of both vertebral arteries	pc-ASPECTS < 6 and Pons-midbrain-index of ≥ 3 ICH (microbleeds on MRI allowed). Complete cerebellar infarct with significant mass effect. Complete unilateral or bilateral thalamic infarction Vertebral occlusion, high grade stenosis or dissection in the extracranial or intracranial segment that cannot be treated or will prevent access to the intracranial clot or excessive tortuosity of cervical vessels precluding device deployment. Occlusions in both anterior and posterior circulation. Intracranial tumor (except small meningioma).
ATTENTION [40]	<12 hrs	507	Occlusion: BA	ICH (microbleeds on MRI allowed). Artery is seriously tortuous, variability or dissection, and thrombectomy device cannot reach the target vessel PC-ASPECTS: <6 for patients<80 years (<8 for patients ≥80 years) Cerebellar infarction with significant mass effect Complete bilateral thalami or bilateral brainstem infarction Occlusion of both anterior and posterior circulation Intracranial tumors (except small meningiomas).

RESCUE Japan-LIMIT [32]	< 6 hrs from LKN or within 24 hrs if no early change on FLAIR.	203	Occlusion: ICA or M1-MCA ASPECTS: 3 to 5, as determined with the use of CT or DW-MRI.	ICH Chronic vessel occlusion Significant mass effect
SELECT-2 [35]	Within 24 hrs		Occlusion: ICA or M1-MCA ASPECTS: 3 to 5. Core infarct > 50 ml (CTP/MRI)	ASPECTS of 6-10 AND core volume <50 cc ASPECTS ≤ 2 Intracranial tumor (except small meningioma), acute ICH, or AVM Significant mass effect with midline shift Flow limiting ICA dissection or aortic dissection. Intracranial stent that precludes safe deployment of the neurothrombectomy device Multiple vascular territory involvement
ANGEL-ASPECT [34]	Within 24 hrs	456	Occlusion: ICA or M1-MCA Combination of NCCT ASPECTS and perfusion core volume when ASPECTS <3 or > 5 (6h-24h) as follows: ASPECTS 3-5 ASPECTS >5 (6h-24h) with infarct core volume 70-100 ml ASPECTS <3 with infarct core volume 70-100 ml	Midline shift, herniation or mass effect with effacement of the ventricles Acute ICH Multiple vascular territory involvement

Supplementary Table-2: Imaging based inclusion and exclusion criteria for select trials based on EVT. ASPECTs = Alberta Stroke Program Early CT score, BA = basilar artery, CBF = cerebral blood flow, CT = computed tomography, CTA = CT angiography, CTP = CT perfusion, DWI = diffusion-weighted imaging, EVT = endovascular treatment, ICA = internal carotid artery, MCA = middle cerebral artery, MR = magnetic resonance, MRA = MR angiography, MRP = MR perfusion, NCCT = Non contrast CT, NIHSSs = National Institutes of Health Stroke Scale score, TICI = thrombolysis in cerebral infarction scale, TIMI = thrombolysis in myocardial ischemia, Tmax = time to maximum of residue function, VA = vertebral artery.